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Committee on the Peaceful Uses of Outer Space

409th Meeting
Thursday, 15 June 1995, 10 a.m.
Vienna

Chairman: Mr. Hohenfellner . . . . . (Austria)

The meeting was called to order at 10.20 a.m.

In the absence of the Chairman, Mr. Dumitru Mazilu (Romania), Vice-Chairman, took the Chair.

General exchange of views *(continued)*

Mr. Flores (Philippines): The Philippine delegation is very pleased that Mr. Peter Hohenfellner will continue to preside over the Committee. We wish to assure him of our full cooperation as he guides us towards the meaningful fulfilment of our tasks at this thirty-eighth session of the Committee.

We also wish to extend our warm felicitations to you, Mr. Mazilu, on your election to the post of Vice-Chairman. We are fully confident that your sterling qualities and excellent background will be of immense value to our work.

We come to this session fully aware of the primordial task we seek to achieve: to undertake an assessment of the ways and means of maintaining outer space for peaceful purposes and to determine the manner of ensuring that the benefits of space exploration and research are equally accessible and available to all.

We begin our work with a discussion of agenda items which are of general and significant interest to delegations here. The results of this discussion will, in the main, provide meaningful direction to this session.

The Philippine delegation concurs in the thrust of General Assembly resolution 49/34 of 9 December 1994, which mandated the Committee to give priority to consideration of the ways and means of maintaining outer space for peaceful purposes. We also share the great concern about this subject articulated by like-minded States during the thirty-seventh session of the Committee and the forty-ninth session of the General Assembly.

My delegation notes with satisfaction that these past efforts have succeeded in bringing to the fore more than ever the urgent need for greater global concern and action on the question of the maintenance of outer space for peaceful purposes.

My delegation commends the thorough and comprehensive work of the secretariat in the preparation of the two basic documents for our consideration at this session — the reports of the Scientific and Technical and the Legal Subcommittees. If we successfully complete the tasks that lie ahead, that will be, in no small measure, because of the efforts of the Chairmen of the two Subcommittees and the indefatigable work of the secretariat.

The Philippines also supports the current efforts of the Scientific and Technical Subcommittee regarding the urgent need to ensure the full implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82) — a need emphasized in General Assembly resolution 49/34.

We should also note the work done by the Working Group of the Whole in evaluating the state of the implementation of the recommendations of UNISPACE 82.

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This is set forth particularly in the Working Group's report on its eighth session, held in 1994. That report included an update on international cooperation in the peaceful uses of outer space and technical studies on the improvement of participation of developing countries in the global exchange programme and on satellite-based radio-broadcasting services.

We also support the convening of a third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), with clear objectives and a thorough preparatory process, to take stock of the significant initiatives undertaken as a result of the recommendations made by UNISPACE 82.

While on the subject of the United Nations Programme on Space Applications, I wish to reaffirm the importance my delegation attaches to this worthy endeavour, providing a vehicle for international cooperation in space science and technology. It has been my delegation's ardent desire, as articulated on many occasions here in Vienna and in New York, to seek an expanding level of international cooperation, given its valuable role in meeting the development and other needs of developing countries like the Philippines.

The beneficial impact of the application of space technology in addressing the basic development and other needs of peoples in the developing world, involving aspects such as education, communication, food security, medicine, resource management, environmental protection, and disaster warning and management, cannot be overemphasized.

The Philippines also notes with satisfaction the report of the United Nations Expert on Space Applications, which focused on current efforts geared towards an expanded United Nations Programme on Space Applications. The report highlights the many significant accomplishments under the work programme endorsed by the Scientific and Technical Subcommittee.

The Philippines fully concurs in the view expressed at the thirty-fourth session of the Legal Subcommittee that that Subcommittee and its subsidiary bodies play a supportive role in other international forums dealing with the issue of preventing an arms race in outer space and the creation of a mechanism for cooperation between the Subcommittee and the Conference on Disarmament's Ad Hoc Committee on the Prevention of an Arms Race in Outer Space. We view this as a significant development reflecting the current global efforts to strengthen international cooperation in outer space as it relates to disarmament concerns.

On the issue of the duration of the Legal Subcommittee's sessions, the Philippines is also of the view that, as in other United Nations bodies, there is a need for considerable reduction and rationalization of the Subcommittee's work schedule. This is an important undertaking that should be given priority in the light of the budgetary and other resource constraints that the Subcommittee and, for that matter, the United Nations as a whole, have to grapple with at the present time.

My delegation also shares the view that an international framework for dealing with the problem of space debris is necessary. Indeed, my delegation views it as a crucial task to urgently establish the scientific and technical as well as the legal considerations for addressing this problem, which affects international cooperation in outer space activities. In our view, the solution of the problem of space debris is of great importance to the peoples of the world, who aspire to a safe, peaceful and equally productive outer space environment.

The Philippines is convinced that nations and peoples willing to come together and cooperate and share responsibility in regard to outer space will have so much at stake in its exploration and use that they will work harder to ensure that its peacefulness is not impaired by man's folly.

We are also pleased that the Scientific and Technical Subcommittee at its thirty-eighth session accorded priority in its agenda to the issue of space debris, and that it adopted the multi-year work plan formulated with a view to advancing consideration of this item. We also concur in the view that the Legal Subcommittee at its forthcoming session should proceed with its consideration of legal issues relating to space debris.

My delegation wishes to reiterate its full support for the Brazilian-initiated working paper on principles regarding international cooperation in the exploration and utilization of outer space for peaceful purposes. As one of the sponsors of the paper, we wish to emphasize that it is the desire of the Philippines, as one of the developing nations, to set up mechanisms, legal and institutional, to redress existing inequities between technologically advanced space-faring nations and technologically disadvantaged non-space-faring nations. The elaboration of principles of international cooperation in outer space is one of the

priority mechanisms that must be put in place for the benefit of all.

On the issue of access to the geostationary orbit, the Philippines has always held the view that since this is regarded as a limited natural resource it must be utilized in a rational and equitable manner for the benefit of all mankind.

We wish to underscore that we regard it as essential that in arriving at a satisfactory resolution of this issue delegations display the political will to enshrine in an appropriate legal framework the principle of equitable access for all countries to the geostationary orbit.

Mr. Halatchev (Bulgaria): The Bulgarian delegation would like to say how pleased it is that Mr. Peter Hohenfellner, the representative of friendly Austria, is chairing the Committee on the Peaceful Uses of Outer Space. We are convinced that under his skilful guidance the tasks of the thirty-eighth session of the Committee will be successfully accomplished. I should like also to congratulate the representative of Romania, Ambassador Dumitru Mazilu, on his election to the post of Vice-Chairman. We are grateful to the Director of the Office for Outer Space Affairs, Mr. Jasentuliyana, and his colleagues for their hard work on behalf of the Committee.

My delegation appreciated Mr. Hohenfellner's very informative introductory statement, which laid an excellent basis for our deliberations.

This session is taking place on the eve of the fiftieth anniversary of the United Nations. As an integral part of the Organization, the Committee on the Peaceful Uses of Outer Space has played an important role in promoting mutual understanding and cooperation between States in the field of outer space activities. Working on the basis of consensus, the Committee has contributed to the harmonization of the different views and interests.

The end of the cold war has given new momentum to and opened broad perspectives for international cooperation. This will increase the importance of the Committee and its subsidiary bodies. Bearing in mind the Committee's ever-increasing role, we consider an examination of its methods of work, with a view to increasing its effectiveness, to be essential.

My delegation commends the useful work done by the Scientific and Technical Subcommittee and by the Legal Subcommittee at their last sessions.

The Republic of Bulgaria has been an active participant in space research for more than 20 years. Over the last several years there have been a number of changes in the organization of space research necessitated by the new political and economic situation in the country. The painful transition from a centrally planned to a free-market economy and the severe economic crisis, combined with the enormous damage to the country's economy as a result of strict implementation of the sanctions against the Federal Republic of Yugoslavia (Serbia and Montenegro), have seriously impeded the realization of national space programmes. This has necessitated urgent steps to preserve the country's scientific and technical capabilities.

The Bulgarian AeroSpace Agency (BASA) was established on the basis of the experience of the leading space nations and the advice of the United Nations Office for Outer Space Affairs. BASA has gathered strength, establishing a number of useful contacts in the course of just a year. Agreements on cooperation with the Russian Space Agency have been signed, and negotiations have been conducted with the German Space Agency, as well as the space agencies of France, the Netherlands and Norway. The exchange of ideas with representatives of the United States National Aeronautics and Space Administration (NASA), the Austrian Space Agency and the European Space Agency (ESA) was extremely useful. We hope to join in future ESA programmes, which would help to bridge the technological gap between us and the member States and would provide a basis for advanced technological research. The European Space Agency is an element of the European integration process, in which we wish to play a part.

In May this year an agreement was signed between the Governments of the Republic of Bulgaria and the Russian Federation on cooperation in the field of the exploration and peaceful uses of outer space. This agreement envisages cooperation in the fields of land-based infrastructure and space systems for remote-sensing of Earth and monitoring of the environment, observation of global changes from outer space, telecommunications, navigation, manned flights and other matters.

We are convinced that through broader joint efforts Bulgaria will preserve and further develop its scientific and technical capabilities in space research and applications. At the same time, we believe that it is through joint activities that we can best contribute to the advancement of space science and technology for the benefit of all States.

Bulgaria has been taking an active part in the international INTERBALL project — launched in 1995 — for studying the physical mechanisms of the transference of the solar wind to the magnetic field of the Earth.

Long-term experiments with the Bulgarian biotechnological system Greenhouse SVET-2 have been included in one of the most prestigious international programmes — MIR-NASA — for the period 1995 to 1997.

Bulgarian space equipment is also included in the future international project Mars-96 — radiation measurements of the environment of Mars with RADIUS-M and the magnetometer ELISMA — as well as in the Mars-98 project.

I should like, in conclusion, to assure the Committee that Bulgaria is ready to continue its contribution to strengthening international cooperation in the field of the peaceful uses of outer space.

Mr. Roux (South Africa): My delegation also wishes to congratulate you, Sir, on your appointment as Vice-Chairman of the Committee on the Peaceful Uses of Outer Space. We trust that your term of office will be both fruitful and gratifying to you.

For South Africa, it is indeed a great honour to have become a member of the Committee on the Peaceful Uses of Outer Space and to take part in the activities of such an important United Nations body. Needless to say, our membership was made possible mainly by the far-sighted decision to enlarge this Committee. My delegation is pleased to thank the Chairman, Ambassador Hohenfellner, and those other representatives who have expressed kind words of welcome. We also take this opportunity to register our appreciation to the Office for Outer Space Affairs for its programme of activities, as reflected in Mr. Jasentuliyana's report to this session. Indeed, we look forward to a productive and fruitful engagement with the Office for Outer Space Affairs and COPUOS in the years to come.

Since this is our first participation as a permanent member of the Committee, may I also take this opportunity to share briefly with members specific areas of our space programme. Though our own space programme is rather modest at present, the spin-off and direct benefits of space-related activities are very important to us and our subcontinent.

From the earliest days of man's entry into outer space, South Africa has supported the need seen by the United Nations for a suitable regime to govern mankind's activities in outer space. We have also been involved in providing telemetry and command services for a great many United States National Aeronautics and Space Administration (NASA) and Centre National d'Etudes Spatiales launches. One of our leading universities, Stellenbosch University, is in the final stages of building a micro satellite, the SUNSAT Project. We have negotiated with NASA for the launching of that satellite on a NASA launch vehicle in the latter half of 1996. Unfortunately, the Greensat project, of which a number of representatives here are aware, has been shelved for financial reasons.

South Africa also has good launching facilities available. Several countries have shown an interest in making use of it for various launching activities. As South Africa has not hitherto had a programme involving the launching of space objects, a South African space agency has never been established. Once it became apparent that we had the necessary expertise and that plans to build South African satellites were under way, legislation was passed in 1993 providing for the establishment of a South African Space Affairs Council. This Council is at present in the process of being established and will perform the function of a registering and regulating body and a source of encouragement for space-related activities in South Africa.

South Africa's support for international space activities has been demonstrated by its signature and ratification of the principal international space agreements. My country has, for example, signed and ratified the outer space Treaty and the rescue Agreement. South Africa is also at present in the process of preparing to ratify the liability Convention and to accede to the registration Convention, which should ensure that our relationship with the international space community is put on to a sound footing.

I am providing this information on our internal arrangements and legislation in order to give an indication of the significance my country attaches to space-related activities. This includes remote sensing, with its significance for effective planning and assessment in so many fields of human endeavour, communication via satellite links, astronomy, astrophysics and the aerospace industry.

Since the question of the possible holding of a third UNISPACE conference has been raised by the Chairman and several delegations, I would like to share South Africa's views on this issue with this Committee. Our

views are defined by the question of the benefits to be gained from such a conference, especially by developing countries, given that, since the last UNISPACE Conference, in 1982, a number of new members have been added to COPUOS, some of them developing nations. A third UNISPACE conference would be an ideal opportunity for these new members of COPUOS, together with those not represented on the Committee, to articulate new objectives, reflecting the new, diverse needs of humankind in a dramatically changed international and rapidly developing technical environment. It is thus most important that a third UNISPACE conference have the clearly defined objective of providing benefits to the whole world and the developing nations in particular, with a well-defined agenda giving substance to those objectives. With this proviso, South Africa in principle supports the holding of a third UNISPACE conference in a developing country.

We share the Chairman's sentiments on the need to speed up the decision-making process within the Committee. Consequently, we would encourage the examination of creative approaches to expediting the workings of the decision-making process of the Committee. This suggestion is in keeping with the rapidly changing nature of the scientific and technological characteristics of space activities.

On the question of space debris, South Africa shares the feeling already expressed by other delegations on the growing need to establish a legal framework. It is therefore the view of the South African delegation that the question of space debris should be included in the agenda of the next session of the Legal Subcommittee as a matter of priority.

South Africa, as a member of COPUOS, stands ready to cooperate with countries in southern Africa, in the Africa region and indeed throughout the world to leverage the peaceful uses of outer space to the benefit of all peoples and countries of the world. We take this challenge seriously and are sure that this session will also commit itself to these ideals.

Ms. Skoog (Sweden): Let me first join previous speakers in welcoming you once again, Sir, as Chairman of the Committee on the Peaceful Uses of Outer Space. Your continued chairmanship provides an important element of continuity in our work in this Committee.

I should also like to use this opportunity to welcome the new members of COPUOS. An enlargement was overdue, and my delegation hopes that the active participation of the new members will enrich our deliberations. Furthermore, it is our hope that the spirit of cooperation will guide us in our work this week and next.

During this meeting of the Committee, we will have the opportunity to discuss a number of important issues. I will briefly state the views of my delegation on a few of these.

We welcome the important progress achieved during the last session of the Scientific and Technical Subcommittee, in February this year. In particular, the issue of space debris was carried forward by the adoption of the multi-year work programme. As my delegation has stressed on other occasions, the thorough scientific assessment now to be undertaken will enable us to develop a common understanding and an appropriate definition of the problem of space debris. We believe that this is a necessary prerequisite to a decision on further action to be taken. During this endeavour, we should also draw upon the work already carried out in this field by national and international space agencies.

Furthermore, in the initial preparations for a possible third UNISPACE conference progress was made with the identification of basic elements for an indicative agenda. Although our work was of a preliminary nature and there is a need for further consideration and refinement, we believe that it could constitute an important basis for our future deliberations. In the view of my delegation, the main theme should be that of global access to space technology. In this respect, a third UNISPACE conference could contribute to highlighting space applications in support of environmental control and disaster mitigation. We look forward to participating in the discussions on this issue that will take place under agenda item 5.

In the Legal Subcommittee, we noted with satisfaction the breakthrough in the discussions on space benefits. It is our hope that this new momentum will enable us to advance substantially, and we look forward to a successful conclusion of this agenda item in the near future. Regrettably, the same cannot be said of some of the other matters at present on the agenda. Alternative ways of dealing with these subjects should be further explored.

The United Nations Programme on Space Applications contributes in an important manner to increased knowledge and access in the field of space applications. Sweden continues actively to support the Programme by jointly organizing remote-sensing training courses in Stockholm and Kiruna. The fifth course, with 27 participants, closed last week. Sweden also supports a number of bilateral

projects to promote the use of space applications through Earth observation and mapping of natural resources.

In order to increase the relevance of the work in Committee and its Subcommittees, it is important to strive to enhance its efficiency. We welcome the improvements made through better matching of Subcommittee sessions to their agendas. Time and efforts could also be saved, when embarking on new subjects, by setting up deadlines for their conclusion and, of course, by avoiding duplication of work to the greatest extent possible. However, saving resources is not an end in itself. We must also show a readiness to take on new tasks and challenges when need arises.

I am delighted to confirm to this Committee that, as the Chairman mentioned in his opening statement the day before yesterday, the Swedish mini-satellite Astrid was launched from Plesetsk in January this year. Despite some initial problems, we have managed to keep the platform facilities fully operational. However, part of the payload is out of order owing to power failure. In spite of this, Astrid has already delivered interesting data, *inter alia*, on the northern-light phenomenon, and is now testing various equipment for communications, solar-power cells and directional attitude control. We look forward to sharing future results from this mission with the Committee.

Mr. Louet (France) (*interpretation from French*): As this is my first statement at this year's session, I want to begin by saying how pleased I am that Ambassador Hohenfellner has been elected Chairman of the Committee.

My delegation comes to this thirty-eighth session in a constructive spirit, despite our mixed feelings about the break in consensus during the General Assembly's debate on the peaceful uses of outer space. In the end, the Assembly was unable to adopt unanimously the draft resolution authorizing the expansion of this Committee from 53 to 61 members, although such unanimity has been traditional. This break of consensus sets an unfortunate precedent for future discussion, and we sincerely hope it will prove to have been an exception that will not occur again. This in no way detracts from my warm welcome and congratulations to the new members of the Committee.

My delegation hopes that our deliberations will be rich enough to yield specific proposals in the Committee's annual report to the General Assembly. As members know, my delegation wishes to play an active role in discussions dealing directly with space activities. In that connection, my delegation will make a modest effort to improve the Committee's working methods by following a suggestion made last year in the Committee and not describing France's space activities over the past year. We have prepared and made available a written report on that subject.

The first agenda item on which I want to touch relates to space debris. The Scientific and Technical Subcommittee considered this item under satisfactory conditions. It considered

> "relevant studies, mathematical modelling and other analytical work on the characterization of the space debris environment" (*A/AC.105/605, para. 75*).

The Subcommittee had agreed that at this session it was to

> "focus its attention on the subject of the acquisition and understanding of data on the characteristics of the space debris environment, with a view to establishing a common understanding that could serve as the basis for its further deliberations". (*ibid., para. 76*)

The French delegation made a scientific presentation on this item at the last Subcommittee session. A programme of work was adopted for the period 1996 to 1998.

As members know, we do not favour a priori consideration of the drafting of legal standards unless such consideration is preceded by in-depth analysis of the data or the problems and by assessment of experience gained in that field by countries with launch capability. That is why we still object to the presence of this item on the agenda of the Legal Subcommittee. Nevertheless, we are ready to give careful consideration to any constructive idea that could enrich our discussions in coming session of the Scientific and Technical Subcommittee, and to supplement its programme of work if necessary.

The possibility of convening a third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III) was given in-depth discussion at the last session of the Scientific and Technical Subcommittee. My delegation indicated that the question of the conference goals and agenda is of great importance, and in that connection we proposed a number of themes for possible study, to facilitate consideration by delegations. I shall not discuss this in detail at this stage.

Financial aspects of a third UNISPACE conference are another crucial factor; contrary to what is stated in paragraph 22 of our provisional agenda, it has hardly been

considered to date. As to a possible date for UNISPACE III, the Committee must bear in mind the provisions of paragraphs 25 to 29 of General Assembly resolution 49/34, which sets no deadline for a Committee decision on this matter, and especially the fact that there is no consensus on the very principle of holding a third UNISPACE conference. Many delegations, including my own, believe that the Committee and its Scientific and Technical Subcommittee should pursue parallel consideration of other ways to attain the same objectives.

With respect to space cooperation — "Consideration of the legal aspects related to the application of the principle that the exploration and utilization of outer space should be carried out for the benefit and in the interests of all States, taking into particular account the needs of developing countries", as it appears on our agenda — the present debate is based on two documents, each offering a different concept: a Brazilian text; and since the last session of the Legal Subcommittee a document submitted by the French and German delegations. Each has its own internal logic, and they are clearly different philosophically. This means that the summary document prepared by the Chairman of the Working Group on this item is unlikely to enrich our debate.

The Brazilian draft suggests the adoption of a set of legal principles. The Franco-German draft, underlining the advantages of bilateral or multilateral cooperation based on the free choice of partners and the area of activity, is at present in the form of a declaration. We intend to suggest that this text be annexed to a General Assembly draft resolution or that, with a preamble the text of which we will submit to the next session of the Legal Subcommittee, it should move towards the form of a resolution.

The last topic that I should like to deal with in this first statement concerns the working methods and the agenda of the Legal Subcommittee.

The Legal Subcommittee usually holds three-week sessions. This has been too long in the past two years, since the drafting of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space is nearly completed. The session could be shortened to two weeks, or less. Consequently, at the last session of the Legal Subcommittee, agreement was finally reached to shorten the session to two weeks.

In addition, informal consultations were held on the questions of working methods and the agenda. Their outcome, as reflected in the report of the Legal Subcommittee, is not satisfactory. Indeed, there is no consensus on the proposals put forward by certain delegations, particularly the new items to be included in the agenda. I believe that the outer space Committee should now exercise its authority over the Scientific and Technical Subcommittee and the Legal Subcommittee to put the discussions back on track. With its role as regulator and initiator, this Committee must have the final say in determining the items to be placed on the agendas of the two bodies under its authority. It is also our Committee's duty to make sure that the deliberations of both Subcommittees take place in an effective and coordinated manner. This afternoon, in fact, we will consider the question of methods of work. We must do so with the aim in mind of preserving our Committee's authority and ensuring that it fully shoulders its responsibilities.

No doubt this statement was too long, but I did wish to give the Committee immediately my delegation's views and opinions on the items on our agenda that I believe warrant particular attention.

Mr. Wicks (United Kingdom): My delegation would like to take this opportunity to express our satisfaction that once again, Ambassador Hohenfellner is Chairman of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) at this, its thirty-eighth session. We also congratulate the Vice-Chairman on his election.

My delegation will comment briefly on the Scientific and Technical, and Legal Subcommittees. We will give more detailed statements when substantive discussion takes place under agenda items 5 and 6.

First, as concerns the Scientific and Technical Subcommittee, we are pleased to note that agreement was reached on a multi-year work plan. Additionally, we are particularly satisfied that the issue of space debris has become a priority for the Committee's work. There is a need to understand and define the extent of this problem. But until we do so it would seem wholly inappropriate and premature to task the Legal Subcommittee with work on this issue.

Secondly, this year we saw a successful outcome to the outcome of the discussions of the Legal Subcommittee. The adoption of flexibility in its approach to the work in hand led to a more efficient, but no less effective, session.

We can all agree on the ongoing need to improve the working methods of the Committee and its Subcommittees. We should not be complacent in considering ways in which

this can be achieved, and we hope that further ideas will emerge from this session of COPUOS.

To conclude, my delegation extends its gratitude to Professor John Carver for his considerable contribution to the work of the Scientific and Technical Subcommittee. We also take this opportunity to express our gratitude to the Committee's Secretary and his colleagues in the Office for Outer Space Affairs Division for their support to the Committee and Subcommittees.

Mr. Khani (Islamic Republic of Iran): At the outset, may I take this opportunity, Sir, to join other representatives in expressing pleasure at seeing you again in the Chair of the Committee of Peaceful Uses of Outer Space. I wish you every success. My delegation remains confident that this Committee will be able to make significant progress under your guidance and diplomatic brinkmanship.

Along with the worldwide centralization of the international economy and regional realignments, the Islamic Republic of Iran's economy is thriving and prospering day by day. In this regard and in order to benefit from new approaches and technologies, the peaceful uses of space and its related technologies are of great importance for the country's overall development and are becoming more necessary due to their role in communications and data transmission, resource exploration, environmental monitoring, tele-education, telemedicine, weather forecasting and, finally, broadcasting radio and television programmes. Furthermore, special attention has been paid to space applications for environmentally sound and sustainable development, based on Agenda 21 of the Declaration of the United Nations Conference on Environment and Development issued in Rio de Janeiro, Brazil. In accordance with the two themes of development and environment, the Islamic Republic of Iran is also adopting certain new policies to appeal for international cooperation as well as collaboration among Asia-Pacific countries within the framework of coordinated projects of the Economic and Social Commission for Asia and the Pacific (ESCAP).

Consequently, a high-level delegation from the Islamic Republic of Iran, headed by the Minister of Post, Telegraph and Telephone, actively participated in the Ministerial Conference on Space Applications for Sustainable Development in Asia and the Pacific Region, which was held in Beijing, China, from 19 to 24 September 1994. As the Minister clearly stated in his speech to the Conference, the Government of the Islamic Republic of Iran in its turn has paid special attention to different applications of space technology and is firmly committed to promoting the use of these technologies through technology transfer programmes and benefits for its own society resulting from these efforts. These efforts are currently under way through the expansion of networks required to cover all necessary steps. Furthermore, the Beijing Declaration on Space Technology Applications for Environmentally Sound and Sustainable Development in Asia and the Pacific recognized the competence of members and associate members to formulate, adopt and implement their respective policies on space-technology applications for development, mindful of their social, economic, and political conditions. It also reaffirmed that the members and associate members of ESCAP, in accordance with the recommendations of UNISPACE 82, have the right to the exploration and peaceful use of outer space and to the use of space technologies for their natural resources, environmental management and sustainable-development planning.

The space-related activities of the Islamic Republic of Iran, which are based on these goals and directives, can at present be summarized as follows.

Since the 1972 launching of the first earth resources satellite, Landsat-1, Iranian specialists have been actively involved in using space-acquired remotely sensed data for natural resources studies of the country, data which are subsequently instrumental in development planning. In this regard, the Iranian Remote Sensing Center (IRSC) is responsible for coordinating and supervising all national remote-sensing activities.

IRSC conducts specialized short-term training courses for mid-level managers and specialists from both the private and the public sectors. By now, 36 special courses have been conducted to train 820 specialists and managers. In addition to training courses, IRSC provides services such as: distributing satellite data — in different scales and formats, consulting, undertaking joint projects and providing support as required to its user community of more than 90 agencies involved in administration, research, education, development, planning and infrastructure-related activities.

Furthermore, nine different projects were carried out by IRSC at local, provincial and national levels, in addition to the application project for monitoring the country's renewable resources, which is in the final stages of planning by the Forest and Range Organization of the Ministry of Construction. The Islamic Republic of Iran's satellite ground receiving station at Mahdasht is notable as

the oldest station in the region. The station, which was established as long ago as 1976, failed to operate fully due to some technical and administrative problems. IRSC has devoted its efforts to overcoming the obstacles in order to upgrade this station and make it operational.

There are seven State-owned organizations in the Islamic Republic of Iran involved in Geographic Information System and Lightning Imaging Sensor (GIS/LIS) activities. While some organizations are using those systems for decision-making and resource management purposes, other agencies are integrating the data received for use in planning or research projects.

Satellite meteorological activities are carried out by the Islamic Republic of Iran Meteorological Organization (IRIMO). A satellite receiving station for Meteosat and for National Oceanographic and Atmospheric Administration (NOAA) Asia Pacific Telecommunity (APT) data is located in the forecasting section of IRIMO in Tehran. There are plans to upgrade the facilities in order to receive and process NOAA advanced very high resolution radiometer (AVHRR) data.

The Islamic Republic of Iran currently provides telecommunication services using some 3,000 international channels via three stations, located at Isfahan, Shahid Qandi and Bume-hen. The number of channels is projected to increase to 8,000 by the end of the second five-year national development plan for international communications. In this process, analog systems will be converted to digital technology by the International Digital Remote/digital circuit multiplication equipment (IDR/DCME) system. In addition to these facilities, the Telecommunication Company of Iran (ITC), which is affiliated with the Ministry of the Post, Telegraph and Telephone (MPTT), is presently using some 72 MHz transponders of the Intelsat Organization for domestic communication purposes, including seven provincial main stations and 54 rural ground terminals. In its second phase, this project will be covering a group of 17 main stations and 831 rural stations, and ultimately in its third phase it will cover 3,000 rural stations.

An affiliated agency of the MPTT, the Iran Telecommunication Research Center (ITRC), carries out research and development projects in the field of telecommunications at the national level. In this regard, a research project for the production of receiving antennas and equipment was successfully completed.

In order to broadcast radio and television programmes all over the country, Islamic Republic of Iran Broadcasting (IRIB) is at present using three transponders present on Intelsat VI and a ground segment of three stationary and one portable ground receiving stations. Eight hundred local receiving antennas were also installed in different parts of the country in order to broadcast television programmes and five radio network programmes to all urban and rural areas.

In addition to those points, a project for the use of news gathering satellites based on the use of two portable transmitters, each equipped with a 1.9 meter dish, as well as two International Maritime Satellite Organization (Inmarsat) "A" terminals, was implemented.

Another important application of space technology at present in use in the Islamic Republic of Iran is satellite navigation. In this regard, the Ministry of Roads and Transportation (MRT), through its Shipping and Ports Organization, is using Global Positioning Systems for activities such as rescue and relief operations and accurate positioning of marine vehicles. The MRT-affiliated National Civil Aviation Organization also benefits from the Russian Federation's Space System for Tracking Ships in Distress (COSPAS) and the United States Search and Rescue Satellite Tracking System (SARSAT) satellite to exchange rescue, relief and emergency information through present global networks with other related agencies around the world.

In addition to the activities I have already mentioned, the Global Positioning System (GPS), which was basically designed for navigation purposes, is also used by the National Cartographic Center (NCC) for a national levelling project and for triangulation networking objectives across the country and subsequent linkage with regional networks which themselves will be linked with international GPS networks. All criteria, standards and calculations considered are in accordance with the approved international standards of the Federal Geodetic Control Committee (FGCC). The GPS-related activities of NCC will be used for national 1:25000 scale mapping projects and geodesic surveying projects and, finally, for the determination of Iran's geoid and for accurate levelling projects.

Allow me to welcome the establishment of the proposed Centre for Space Science and Technology Education in the Economic and Social Commission for Asia and the Pacific (ESCAP) region. We hope that centre will be operational in the near future and will be able to make

use of the science and technology and relevant services of the other countries in the region.

The Islamic Republic of Iran is convinced of the importance of the application of space technology in the developing countries and reiterates its willingness to assist and cooperate with this centre.

In this context, I would like to mention a significant conference held in my country last month — the First Conference on Space Technology and Developing Countries. It took place in Tehran from 23 to 25 May. A short course by the National Cartography Centre, demonstrations by the Meteorological Organization and the exhibition of uplink and downlink satellite communication by IRIB showed the extent to which space technology is being applied in Iran. Moreover, the United Nations Office for Outer Space Affairs in Vienna and the Committee for Space Research offered their valuable support, which strengthened the international aspect of the conference, The presence of Mr. Lala and Mr. Camacho from the United Nations Office for Outer Space Affairs brought the conference the expertise of this Office. A rocket exhibition from Russia and a short course by Professor Tolyarenko helped the conference achieve its goal of international cooperation in a practical way. The active presence of a Russian astronaut, Mr. Atkov, also played an important role.

We remain confident that such conferences enhance international cooperation in outer space affairs.

Mr. Vaughan (Australia): As I speak for the first time at this session, I wish to welcome Ambassador Hohenfellner to the chairmanship of the Committee at its thirty-eighth session and to wish him success in achieving a productive session.

I have asked to speak under this item to acknowledge the appreciation expressed by a number of representatives for Professor John Carver's recently concluded chairmanship of the Scientific and Technical Subcommittee, and to thank them on behalf of Professor Carver. I am sure that John Carver will be most gratified to learn of these kind acknowledgements of his efforts, and I shall be pleased to convey them to him.

The Chairman: Let me add that I share the opinion of the representative of Australia regarding Professor Carver's contribution. I convey to him my best wishes and sincere thanks for everything he has done to promote the scientific and technical activities of the Committee.

I call on the representative of the European Space Agency.

Mr. Arets (European Space Agency (ESA)) (*interpretation from French*): I wish first of all to convey to Ambassador Hohenfellner our pleasure at seeing him presiding once again over the deliberations of the Committee. I take this opportunity also to congratulate you, Sir, on your election as Vice-Chairman The European Space Agency (ESA) hopes that the Committee's deliberations will be crowned with success.

In connection with item 8 on the agenda of the Scientific and Technical Subcommittee, I wish to note the active role played by the ESA in the area of space debris. We have convened a working group composed of ESA members interested in this problem, and has also represent Europe in an advisory group that also includes the United States, Russia and Japan, and that will soon include China. Experts from the Agency and its member States played a major part in establishing the three-year work plan adopted by the Scientific and Technical Subcommittee.

Moreover, the Agency, which currently operates the radar satellites ERS-1 and ERS-2, is making a major contribution to our understanding of the environment and to the development of new applications for remote sensing, the spinoff benefits of which are substantial, especially for developing countries. We shall be giving a presentation on the applications of the ERS-1/ERS-2 programme following the Committee's afternoon meeting on 15 June.

The Chairman's introductory statement noted — and the Director of the Office for Outer Space Affairs recalled — that the ESA participates actively and plays a major role in the United Nations Space Applications Programme. The Agency shoulders this responsibility on behalf of all its member States by participating in the activities of the Programme; to mention only the most recent activities, these have included the symposiums organized in May at Libreville, Gabon, and at Harare, Zimbabwe. The Agency has a number of activities under way to increase awareness in developing countries and among aid organizations of the usefulness of space technology for social and economic development.

Let me mention three examples. First, there is the African project of the Food and Agriculture Organization of the United Nations (FAO), which is aimed at providing

the continent with proper mapping devices. The remote-sensing satellite is obviously the most effective and least costly way to reach that goal. Especially in tropical and equatorial regions, where there is often heavy cloud cover, using radar satellites such as ERS-1 and ERS-2 is the ideal solution. Currently a receiving station of the German Aerospace Research Establishment (DLR) at the ESA's Ariane-programme station in Libreville, Gabon, provides multi-time coverage of these areas of central Africa. Along with FAO and the States concerned, the Agency has made every effort to ensure the effective use of the data.

My second example relates to South-East Asia. The European Commission and the ESA, in the context of an agreement between the countries of the Association of South-East Asian Nations (ASEAN) and the European Union, have financed the upgrading of the Bangkok station to receive remote-sensing satellite data and have joined with interested countries in commencing a series of pilot projects in Indonesia, Malaysia, the Philippines and Thailand; these will be completed by the end of 1995. Along with the ESA, the European Commission plans to propose that those countries develop the projects and ultimately make these systems operational. A symposium on "Remote sensing and the geographic information system (GIS) and natural-resource management" organized by Indonesian and European authorities and attended by more than 1,000 participants has just been held at Jakarta.

My final example is the COTOPAXI ground station in Ecuador, whose equipment could be upgraded through regional cooperation between the European Union and the Association of Andean Countries.

Those few examples testify to the concern of ESA members to ensure that the Agency's product is available — in good condition — to potential end-users, especially those in developing countries. Recently the Board of the European Space Agency unanimously adopted a resolution recognizing the Agency's role in that area, and inviting it to act in coordination with European agencies responsible for development assistance and with the European Commission in Brussels.

Let me say a few words about the Agency's programmes and activities. First, on launchers, Ariane-IV, after a failed launch in January, had last weekend its fourth successful launch in 10 weeks. Meanwhile, the Ariane-V launcher should become operational by late 1995, or early 1996 at the latest. The scientific satellites ISO, SOHO and the four CLUSTER models will be launched in coming months. The Agency's Horizon 2000+ programme will ensure the continuation of ESA scientific programmes. The Earth-observation satellites ERS-1 and ERS-2 will be followed in 1997-1998 by the ENVISAT satellite. In the field of meteorology, the agency is working with the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) to develop a second generation of METEOSAT satellites and the first European meteorological satellite in polar orbit, METOP.

In the area of telecommunications, the experimental satellite ARTEMIS will be launched in 1997; the Agency is cooperating with the European Commission and EUROCONTROL to develop a navigation programme using United States Global Positioning System (GPS) and Russian Global Navigation Satellite System (GLONASS) satellites, along with the payload of the INMARSAT III satellites. This will lay the foundation for an international programme known as the second Global Navigation Satellite System (GNSS II), a programme in which Europe will participate actively from the very outset.

European Ministers will meet in the coming months and their principal programme decisions will focus on European participation in the international space station project. The Agency and its member States entered into certain commitments in 1988 in this regard. Since then a number of events have considerably modified the nature of these problems. The budget of the United States National Aeronautics and Space Administration (NASA) was reduced. Russia was invited to participate in the programme. There has been the recent economic crisis in Europe. All these factors have led us to reconsider the methods of European participation in this major programme. Our readiness to participate in it has been reaffirmed by the member States of the Agency, and it will now be for Ministers to define the ways and means and the general objectives of this participation. Participation in this major international programme is evidence of the European Space Agency's concern.

The traditional cooperation with the United States will continue, while cooperation is developing with Russia and Japan as well as with emerging space Powers such as India, China, Brazil and Argentina.

Finally, we hope to continue the cooperation that already is well under way with Canada. Canada has been participating actively for a number of years in several Agency programmes.

The Chairman drew attention to the fact that the Agency is commemorating this year its twentieth

anniversary. We believe that the part played by an organization such as ours — a model of international cooperation — is as justified today as it was in the past. This is evidenced by the demonstrations of interest on the part of a number of European countries not yet members of the European Space Agency. Two member States of the European Union — Greece and Portugal — have concluded or will soon conclude cooperation agreements with the Agency. Other European countries are actively cooperating with the ESA — Hungary, Poland and Romania. A cooperation agreement will soon be concluded with the Czech Republic.

The role of the Agency is also to strengthen cooperation between European countries.

I should like to assure the Committee once again that the European Space Agency will continue to make an active contribution to the United Nations space application programmes.

The Chairman: I call on the representative of the International Astronautical Federation.

Mr. Doyle: Permit me, Sir, to associate the International Astronautical Federation (IAF) with the statements of all representatives who have congratulated you on your election as Vice-Chairman of the Committee, and also to associate the Federation with all the expressions of satisfaction at the continuation of Professor Hohenfellner's direction of the Committee and the strong and efficient support provided by the Office for Outer Space Affairs.

I am grateful for this opportunity to present to the Committee some brief remarks concerning the IAF and its activities in cooperation with, and in support of, this Committee and its Subcommittees.

Established in 1951, the IAF is a non-governmental organization comprising 129 member societies institutions and corporations from 46 countries, both developed and developing. The IAF assembles meetings of experts on all aspects of astronautics and seeks to promote world peace and the application of space technology for the benefit of humanity. A principal suborgan of the IAF is the International Institute of Space Law, which convenes annual colloquiums on the law of outer space, in conjunction with the IAF annual international astronautical congresses.

The IAF works closely with this Committee, the Office for Outer Space Affairs and other organizations such as the European Space Agency and the Commission of European Communities to develop and cosponsor meetings and symposiums aimed at promoting cooperation between the developed and the developing countries. The IAF appreciates deeply the generous recognition of its work in this regard in Mr. Hohenfellner's opening statement and in the report Mr. Jasentuliyana presented to the Committee at the opening meeting of this session.

Representatives of the IAF have presented detailed accounts of our activities in the past year and we do not intend to repeat those details here, except to refer representatives to the IAF statements by Mr. Ernst Fasan before the thirty-fourth session of the Legal Subcommittee and the statement that our recently elected President, Mr. Karl H. Doetsch of Canada, presented to the thirty-second session of the Scientific and Technical Subcommittee.

The IAF, like many others here, regrets to note the decision of Professor John Carver of Australia to retire from his position as Chairman of the Scientific and Technical Subcommittee. After 25 years of outstanding, creative and constructive leadership in that body during an extraordinarily challenging period in this Committee's history. Professor Carver will be missed. We, like others, wish him well in his retirement.

To conclude, permit me to present to representatives here three brief notes of possible general interest in connection with the IAF annual congresses.

First, at the forty-fifth IAF Congress, on the theme "Space and Cooperation for Tomorrow's World", held in Jerusalem from 9 to 14 October 1994, Mr. Karl H. Doetsch of Canada was elected President of the Federation and will be serving for the biennium 1995-1996.

Secondly, the forty-sixth IAF Congress, on the theme "Benefits of Space for Humanity", will convene from 2 to 6 October 1995 in Oslo, Norway, and will feature again a special preliminary symposium for developing countries on developments in the areas of remote sensing and telecommunications.

Thirdly, the forty-seventh IAF Congress will convene in Beijing, China, in October 1996 and, in conjunction with all these congresses, representatives are reminded that the International Institute of Space Law convenes its annual colloquiums on the law of outer space.

We close our brief intervention by reiterating to you, Mr. Chairman, and, through you, to the Committee and to

Mr. Jasentulyana of the United Nations Secretariat our continuing desire to assist and support the work of the United Nations with regard to activities in outer space, in any constructive and appropriate ways we can.

The Chairman: We have heard the last speaker in connection with agenda item 3 — "General exchange of views" — and have thus concluded our general debate.

Ways and means of maintaining outer space for peaceful purposes

Mr. Zlauvinen (Argentina) *(Interpretation from Spanish):* As we said yesterday in our initial statement, the Argentine Government is firmly committed to the use of outer space exclusively for peaceful purposes because it is a unique resource to be reserved for civilian activities and for the progress of all mankind. That is why Argentina has adopted all the measures required to commit and direct all its space activity to this end.

Likewise, the Argentine Republic has acceded to the guidelines for control of the export of missile technologies and is taking an active part in the group of countries that maintain the same position. Similarly, our country's National Commission on Sensitive Exports maintains strict control over all Argentine exports in that sphere, including space technology. The objective is to ensure that they will not ultimately be diverted for military activities or for proliferation.

We strongly support the work carried out by the Geneva Disarmament Conference with respect to the prevention of an arms race in space, and we hope that positive results will be achieved within a reasonable time.

The Argentine Government has also acceded to the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, as adopted by the General Assembly, and has ratified the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies. We hope that the new prospects that have become evident on the world stage since the end of the so-called cold war will make it possible to achieve universal acceptance of these principles and to ensure, finally, that outer space is used exclusively for civilian and peaceful purposes.

In conclusion, we believe that it is essential to recognize that the most appropriate means of preserving outer space for peaceful purposes lies in ensuring active and flexible international cooperation, because such cooperation promotes trust between States and strengthens an environment of greater transparency with respect to space activities.

Mr. Navalgund (India): This agenda item has been under debate in the Committee for several years, and the Committee has a continuing mandate to consider it as a matter of priority. This indicates the importance the international community attaches to maintaining outer space for peaceful purposes. Notwithstanding the fundamental importance of the subject, we have been finding it difficult to make good progress collectively. This is due to the fact that the question is quite complex and, at the same time, delegations are divided on the scope and content of the subject-matter to be covered under the agenda item.

It is very important to recognize that there were several common positions — positions agreeable to the Committee as a whole — on this subject. Broadly, one such area relates to the measures that could strengthen international cooperation in the peaceful uses of outer space. Another agreed approach was to strengthen the role of this Committee in maintaining space for peaceful purposes, especially through its work in the scientific, technical and legal fields.

With regard to measures to strengthen international cooperation in the peaceful uses of outer space, a large spectrum of activities could be undertaken. There could be international projects in space, organized on a cooperative basis, to address needs common to all members. For example, in the field of protecting the Earth's environment and maintaining its long-term integrity, there are strong grounds for conceiving, encouraging and implementing projects that are strongly based on wider international cooperation.

Similarly, in the field of combating the effects of natural disasters, or forecasting and providing early warning of such occurrences, there is wide scope for international cooperative projects based on humanitarian considerations.

Another category of projects that could be strongly encouraged is those that cater to groups of countries with similar needs and priorities. Given the paucity of economic resources available to the space programmes of different countries, there have been severe limitations on resources available for implementing international cooperative projects on a voluntary basis. Hence, additional avenues for increasing international cooperation need to be created. The

Committee on the Peaceful Uses of Outer Space could consider focusing on a few important areas to promote greater voluntary cooperation between its members, areas that involve the common and priority needs of several members. Alternatively, a forum could be created to promote such voluntary cooperation. The key point is that high-level decision-makers should be made aware of the need for, and benefits of, such cooperation.

Another area that needs considerable attention is the identification of specific problems that could affect the peaceful uses of outer space. This involves the study and devising of effective measures to solve problems such as the crowding of space objects in certain positions of the Earth's orbit, the problem of collisions with space debris, the risks to the safe functioning of spacecraft operations, and the question of the safety of space flight. The Committee on the Peaceful Uses of Outer Space could play an important role in these matters. In the field of space law, our Committee needs to do further work on the elaboration of various treaties and agreements that have already been concluded, in the light of practical needs such as issues relating to intellectual property rights, sharing the benefits of space, principles for the exchange of data, and so on.

In conclusion, there are several ways for our Committee to consolidate further the areas of agreement it has already reached with respect to this agenda item.

Mr. Hodgkins (United States of America): As we prepare to set forth the views of the United States on agenda item 4, I think it would be useful to reflect for a moment on our discussions on this item since we first took it up in 1985, at our twenty-eighth session.

As members know, our business under item 4 concerns "Ways and means of maintaining outer space for peaceful purposes". That title was the product of intensive negotiations in 1984, culminating in the inclusion of the item on our agenda at the thirty-ninth session of the General Assembly. The title reflects a compromise worked out with the invaluable assistance of our colleague from Austria, Ambassador Peter Hohenfellner, who, we are pleased to note, chairs our Committee. The inclusion of this item marked the restoration of the consensus principle and the beginning of the long and sometimes arduous task of injecting new life into the work of the Committee on the Peaceful Uses of Outer Space (COPUOS).

Since that time, there has never been any specific agreement regarding the role that COPUOS should play in this regard. Despite this lack of agreement, however, I believe it is accurate to say that this 10-year-old compromise, and the often-inchoate discussions we have had under its rubric, have produced measurable results in the process of revitalizing COPUOS and its Subcommittees. This has been reflected in the establishment of a Working Group on the implementation of the recommendations of UNISPACE 82 in the Scientific and Technical Subcommittee; the addition of new items to the agenda of that Subcommittee; the impetus for the final rounds of negotiations on remote-sensing principles; and the addition of the item concerning spin-offs. All of those developments have their origin in item 4. Indeed, another indication of the success of our efforts is the growing relevance of our Committee's work to the international community more generally, as shown in part by the steady increase over the past few years in the number of other intergovernmental organizations, as well as non-governmental organizations, that seek to participate in the Committee's work.

On the basis of discussions under this item, the Committee also concluded that strengthening international cooperation in the peaceful exploration and use of outer space implied the need for the Committee itself to improve, whenever necessary, the methods and forms of its work. We hope that, whatever political differences delegations may have on certain issues, we can continue to move forward in this area of our work. It is a vital process that must continue if COPUOS is to function effectively in the future as a vigorous advocate within the United Nations system for international cooperation in outer space. And, in our opinion, it represents the only realistic and tangible manner by which COPUOS can execute faithfully its mandate under agenda item 4.

That is why the United States is pleased to see the progress made by the Legal Subcommittee at its last session towards improving its methods of work and that we will be meeting as a working group of the whole to consider how we organize our own work. What we seek is a process of cooperation and dialogue between Member States that could lead to a clear vision of the Committee's course of action for the remainder of this decade and beyond.

Here I would add that we are convinced that no part of that vision would include a role for the Committee in verification or any other aspect of disarmament, as some delegations propose. Rather, the United States continues to believe in the wisdom and validity of the General Assembly's conclusion at its thirteenth session, in 1958, when establishing the ad hoc COPUOS, that our Committee is concerned exclusively with promoting international

cooperation in the peaceful uses of space. The First Committee of the General Assembly and the Conference on Disarmament are the competent multilateral forums for discussion of the disarmament aspects of outer space.

There is no doubt that the utilization of space technology to solve problems on Earth must be considered in a global perspective, particularly as related to the protection of the environmental quality of the world's land, oceans and atmosphere. But regional cooperation continues to hold great promise. Perhaps we should dedicate our efforts under this agenda item to exploring how the Committee could use its resources and expertise to take full advantage of the potential for regional cooperation to meet specific regional needs. We might also consider under this item ways in which the Committee could promote greater international cooperation in the use of space systems for the early warning and mitigation of disasters and global search and rescue activities.

Before concluding my remarks, I believe it is fitting to note that we are meeting on the eve of the twentieth anniversary of a real milestone in international space cooperation. On 17 July 1975, the Apollo and Soyuz spacecraft docked, making history's first international manned space flight mission a reality. The unprecedented link-up, officially called the Apollo-Soyuz Test Project, was a mammoth undertaking, considering the ideological, political and cultural differences dividing the two nations. Technologies representing different origins and purposes had to be integrated. Training programmes, communications, launch and tracking requirements, crew activities, experiments — all had to be planned and coordinated. Mission control centres half a world apart had to be linked, and command responsibilities agreed upon.

Twenty years have passed, and the space programmes of the United States and Russia will again meet in Earth orbit when Space Shuttle Atlantis, on Mission STS-71, docks to the Mir Space Station later this month. This will be the fourteenth flight of Atlantis and the seventieth flight of the Space Shuttle system.

Atlantis will carry two Russian cosmonauts who will replace the Russian/American crew that has been aboard Mir since 16 March. That crew will join the STS-71 for the return trip to Earth. American astronaut Norm Thagard will come back with the American record for a single space flight, with more than 100 days in space.

The STS-71 mission is the first of seven planned Space Shuttle-Mir missions between 1995 and 1997, including rendezvous, docking and crew transfers. The 10-day mission will include joint scientific investigations providing a wealth of knowledge about the human body and the microgravity environment.

Mr. Nili (Islamic Republic of Iran): The end of the cold war and recent developments in the international environment have created new opportunities to improve global peace and stability. For more than a decade the Committee on the Peaceful Uses of Outer Space has been considering the item "Ways and means of maintaining outer space for peaceful purposes", and it is interesting to note that during this time its discussions have shown that various countries are concerned about the important issue of maintaining space for solely peaceful objectives.

In our view, it must be reiterated that space, as the common heritage of mankind, belongs to all generations, and in this regard international standards should be set for preventing an arms race in space. Transparency in space activities is a constructive step towards the prevention of an arms race. An arms race would endanger the safety and security of outer space and create obstacles to space cooperation between countries. In order to keep space free of an arms race, my delegation would welcome any initiative governing space activities for peaceful purposes.

In accordance with a decision of the General Assembly, the Conference on Disarmament in 1985 established the *Ad Hoc* Committee on the Prevention of an Arms Race in Outer Space to consider issues related to the prevention of an arms race in outer space. The discussion in that Committee has not produced significant progress in preserving outer space for peaceful purposes. The Committee's efforts should focus on issues designed to avoid the arming of outer space, because any problems in space would have harmful effects on all humankind.

In our view, the implementation of all proposals on maintaining space for peaceful uses will necessarily require greater coordination of activities among the various bodies of the United Nations. In this regard, my delegation attaches great importance to confidence-building measures and to improving access to space technology — matters dealt with by the Secretary-General in his report entitled "International cooperation in space activities for enhancing security in the post-cold-war era". A key element of cooperation in the peaceful uses of outer space is the expansion of the availability of space technologies and applications to enable all countries to benefit from them. Technical cooperation between Member States and assistance to developing countries in the use of space

technology require the active involvement of the United Nations. In our view, free access to space data, transfer of technology and strengthening of cooperation are among the issues on which developed and developing countries should work together to overcome their difficulties.

In conclusion, we reiterate the need to make it clear that the best means to conserve space for peaceful purposes is international cooperation and transparency in space activities.

Mr. Zaman (Pakistan): The item concerning the ways and means of maintaining outer space for peaceful purposes has been on the agenda of this Committee for the past 12 years. The subject was also discussed during the course of UNISPACE 82. Ever since, it has been one of the most controversial issues that has ever come before the Committee. In spite of the long debates which this item has provoked, very little seems to have been achieved by way of ensuring that all space-oriented activities are limited to peaceful purposes. My delegation considers that merely holding debates is not enough. The debates should lead to tangible results in the form of control over those activities in outer space which are not for peaceful purposes.

There is no denying the fact that it is in the United Nations Committee on the Peaceful Uses of Outer Space that most, if not all, matters pertaining to the uses of outer space are discussed, negotiated and formulated into treaties. In view of the seriousness of this issue, other United Nations bodies also deal with this subject. But this fact does not undermine the work of our Committee. As we all know, several space treaties have been formulated so far under United Nations auspices. In view of the fact that there is increasing interest in achieving greater transparency in space activities as a constructive move towards maintaining outer space for solely peaceful purposes, a number of new measures have been advanced in the recent past to foster the dissemination of knowledge on various technical problems and to prepare the political basis for proper negotiations, which also include the completion of a study on the specific aspects related to the application of various confidence-building measures in outer space. The report on the study contained recommendations with far-reaching consequences. One of the group's recommendations was that COPUOS also explore mechanisms for coordinating various international space activities. Representatives will also recall that a number of proposals have been submitted to the General Assembly or COPUOS about the possible institutional arrangements for monitoring and verifying any agreement on outer space.

All these efforts speak for themselves about the eagerness of humankind to keep outer space for peaceful purposes only, because this is not a problem of a State or States alone: it is a problem for all humankind. Let us face the various issues involved in this respect boldly and, bearing in mind the need to make optimum use of the limited time at the disposal of our Committee, try to make substantial progress in the matter. For this purpose, we will have to develop a strategy by formulating some terms of reference to initiate a constructive discussion on the various issues involved. In my delegation's view, this is perhaps the only way that can lead us to an agreeable solution to the various problems at issue.

Mr. Piso (Romania): I take this opportunity to express to Ambassador Hohenfellner my satisfaction and pleasure at attending this session of the Committee under his impartial leadership. I also express to my Ambassador, the Vice-Chairman of the Committee, Mr. Dumitru Mazilu, my congratulations on his election.

I also express my great appreciation to the secretariat for its success in carrying out the difficult task of organizing the 1994 and 1995 sessions of the Subcommittees and the Committee at the Office's new site in Vienna. Particular congratulations go to the secretariat for the quality of information management and for setting up the Office's Internet Home Page, the Internet Public Space Database. Taken as a whole, the work of the secretariat provides a meaningful model of how to manage complex space problems with a smaller investment; this should be considered by States that are still organizing their own space activities.

The Romanian space programme, coordinated by the Romanian Space Agency, reflects our explicit intention to keep space free from military uses and even to redirect some existing military facilities to peaceful space science, technology and applications. By extension, Romania considers as meaningful the major initiatives of the space Powers to convert military space technology to peaceful uses.

One aspect of this subject on which I should like to comment relates to the dual use of satellites, in particular for the delivery of remote-sensing data obtained from military observation satellites for generic or specific civilian uses. Regarding the possible dissemination of military land observation precision data, I would like to emphasize the potential uses of these data not only for purely civilian applications but also as a method of gathering specific

strategic and tactical information concerning the territory and capabilities of other States.

This is a powerful reason for keeping the Committee's attention focused on the necessity to formulate international rules on the dissemination of military satellite remote-sensing data acquired from the national territory of States. A general legal framework for the process of the dual use of military observation satellites should be established together with provisions for non-discriminatory access to the resulting information. It is clear that this Committee could be the appropriate body to manage such future problems.

Mr. Dzioubenko (Russian Federation) (*interpretation from Russian*): Russia continues to attach great importance to the item entitled "Ways and means of maintaining outer space for peaceful purposes". Yet we have the impression that in recent years the Committee's activities on that item have on the whole, unfortunately, been limited to a very general discussion. We consider that the question of maintaining outer space for peaceful purposes has been considered in a rather abstract way — although many members will remember the days when intensive and creative work in the Committee and its Subcommittees produced basic international legal norms for space activities and for the use of space for peaceful purposes.

What specific initiatives would move our work from the routine level on which we feel it now exists? These are difficult problems, without a doubt; views differ widely on the nature of future norms governing international activity in outer space. Hence, we think it is extremely important to emphasize areas of agreement, or at least areas on which positions are not in conflict. To that end, we think it would be most practical and effective to request States to declare their views on the question of maintaining outer space for peaceful purposes. In that connection, we suggest that the Committee prepare a questionnaire through which States could indicate their views on these problems. Such a questionnaire could be sent to members of the Committee over the signature of the Secretary-General; it would ask them to evaluate the existing international regime regulating space activities from the point of view of its consistency with the objective of maintaining outer space for peaceful purposes, and to indicate any possible future areas for rejuvenating such activities.

For example, the questionnaire could include such questions as these: Under the existing international legal regime for space activities can we ensure peace and law and order in space for the present and the near future and in the long term? What new international legal and other measures could be adopted in the near future with a view to maintaining outer space for peaceful purposes and to creating more favourable conditions for carrying out space activities? Is there a need to modernize existing universal agreements on space and to develop new ones? If it is recognized that new agreements are desirable, what direction should they take?

Of course, we do not claim that this is an exhaustive list of possible questions. We would welcome any additional ideas on the subject, such as those which have already been expressed today. In principle, however, I should like to note once again that such a survey of the various views of States would make it possible to open up the work of the Committee on this issue, initiate a pragmatic stage of concrete analysis and debate, and develop a practical and specific agenda based on the Committee's work in this respect. It would also make it possible for us to consolidate our work and concentrate on separate specific issues.

Mr. Sölendil (Turkey): As a party to the 1967 outer space Treaty, Turkey strictly honours its guiding principles, such as the fundamental principle that the exploration and use of outer space should be for peaceful purposes and should be carried out for the benefit of all mankind.

Within this framework, as we said yesterday in our general statement, we share the Committee's view that remote-sensing activities should take into account the necessity of providing appropriate and non-discriminatory assistance to meet the needs of the developing countries and that remote-sensing and analysed data — including data from operational meteorological satellites — should be made available to all countries at reasonable cost and in a timely manner.

Report of the Scientific and Technical Subcommittee on the work of its thirty-second session (A/AC.105/605)

Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space

Mr. Fulda (Germany): It had been our delegation's intention to speak on agenda item 5 tomorrow morning, but advancing this discussion in order to use the spare time we have this morning can, I think, be regarded as a contribution to implementing the principle of flexibility, which we try to adhere to for the greater efficiency of this Committee.

The Scientific and Technical Subcommittee has for many years had repeated cause to address the subject of space debris. Its successful work on nuclear power sources in outer space began as a result of this issue. The nuclear-powered Cosmos 954 satellite, which went out of control and crashed over Canada, was merely a special case of space debris — special for two reasons: first, because in that case pieces of debris failed to burn up in the atmosphere and thus reached the Earth's surface; and, secondly, because of the very specific threat of radioactivity.

This year, the general question of space debris has for the first time been inscribed on the agenda of the Scientific and Technical Subcommittee. The German delegation had called for this for a long time and, through the internationally recognized work of Mr. Rex, it has supplied major proposals regarding the logically structured work plan which the Committee will follow over the next few years. In fact, it should be sufficient at this time for the Committee to express its satisfaction at this development. In three years' time we can look at the Committee's final report and start to analyse this scientific report politically, determine the need for action and, if necessary, draw conclusions for our future work.

My delegation strongly urges its fellow delegations to keep strictly to this procedure. We cannot draw conclusions now from a discussion which has only just begun in the Scientific and Technical Subcommittee and which will not be completed for at least three years. Nevertheless, we note, with some irritation, that this procedure — the only reasonable and logical option — does not appear self-evident to all. Indeed, last year there were several individual voices here in the Committee which were somewhat unwilling to await the Scientific and Technical Subcommittee's findings before the Legal Subcommittee started to draft a new international legal instrument. There were even calls this year in that Subcommittee for space debris to be immediately placed on its agenda.

There is clearly a need for discussion here. I would like to use this statement not only to help initiate such a discussion but also to ensure that it is conducted in the most rational way possible, using political arguments. In doing so, I intend to speak neither in favour of nor against the conclusion of any kind of international agreement on space debris. On the contrary, my aim is to avoid premature and thus ill-conceived conclusions, to illuminate superficial arguments critically and to keep this Committee's decision truly open until the end of the scientific and technical discussions.

In the opinion of the German delegation, there is no automatic procedure in accordance with which an international treaty, or at least a catalogue of principles modelled on the nuclear-power-sources principles, must be drafted after the scientific preliminaries. We did not bring the scientific discussion before this Subcommittee in order to draft a subsequent legal agreement at all costs; our aim was, rather, to have a thorough discussion of the scientific and technical problems connected with space debris so that we might later assume a common stock of knowledge when discussing whether and, if so, what legal provisions were desirable.

For example, the scientific discussion might reveal that there are different categories of debris. The problems in geostationary orbits might look totally different from those in low-Earth orbits. Perhaps we must deal with radioactive space debris separately. How great is the danger, and who is under threat? Can the problems perhaps be solved without legal norms? To ask such questions is to warn against making premature commitments. There are some arguments that we regard as unconvincing. I shall deal with three of these here today.

Here is the first argument. Some people think that further hesitation is irresponsible. The next satellite crash, at the latest, will persuade everyone that a liability regulation must be drawn up immediately!

But such a regulation already exists in international law. The liability Convention regulates this case and, in our view, needs no additions. This argument sounds even less convincing when presented by delegations in whose countries the Convention has not yet entered into force or whose Governments have not even signed it.

The second argument is that there is already a draft of a space-debris agreement worthy of discussion — for example, the text drawn up by the International Law Association; that the Legal Subcommittee could begin negotiations on this immediately; and that all possible future findings by the scientists and technicians could not add much to the preliminary work done by the lawyers. Here, it is obvious that the future scientific work is being seriously underestimated and the legal preliminaries are being markedly overestimated. Those who carefully analyse the legal treaty draft will have great difficulty recognizing any new legal thoughts or principles beyond existing international law. And whoever has read the three-year programme of the Scientific and Technical Subcommittee carefully can no longer, in view of the complex nature of the problems, boast of being able to predict the result.

The third argument is that, instead of cutting the length of the Legal Subcommittee's sessions, we should keep this body gainfully employed. Space debris is the most sensible subject for this purpose. This argument is not only the weakest but also, unfortunately, the most commonly heard in this connection. My delegation has the highest regard for the historic achievements of the Legal Subcommittee. Here is the birthplace of the entire body of international law on space. For that reason alone we must refrain from abusing this Committee as a job-creation instrument. If we do not arrive at the political judgement, on the basis of thorough scientific preparation, that international regulation is required in this case, then we should not shy away from recognizing that the historical phase of international space legislation may have come to its end.

In our discussion of nuclear-energy sources in space we have concentrated on technical strategies aimed at avoiding future dangers. It could be — and I say once again that I in no way seek to pre-empt the scientific findings — that in three years we shall come to the conclusion that we should, above all, talk about strategies to avoid the future production of space debris. And it could be — again speaking purely hypothetically — that we would then find that industry already uses existing technologies voluntarily, without State pressure. For in space we have the unique situation that the parties responsible for the threat and the potentially threatened parties are almost identical.

This is a radically different situation from earthly environmental policy. State or private launchers of satellites or missiles, who alone cause the production of space debris, cause themselves damage if they do not take countermeasures. Here, of course, we are not speaking about debris that does not burn up in the atmosphere and, thus, falls to Earth, since this is an eventuality covered by the liability Convention.

As members of the Committee know, the greatest danger of space debris stems from explosions. Fuel left over in a missile upper stage becomes overheated; this stage explodes while in the same orbit as the satellite; there are collisions, causing further fragmentation; and a whole orbit is then full of debris. Professor Rex has very clearly illustrated these cascade threats in computer simulations. In this case it might be sensible to call for State regulation — for example, an international agreement. Instead, we are witnessing a highly interesting new development.

For some time now the European Ariane rocket has been equipped with a costly ventilation system for the upper stage, which evacuates spare fuel and thus prevents explosions. United States rocket producers have developed similar systems. These measures were initiated without any legal requirements and without any international treaties, and they entailed considerable investment. Why? Because the market demanded them. The Ariane customers want their satellites to be transported into space by a rocket that does not increase the dangers present in orbit and, thus, extends the statistical lifetime of the satellite. This is why Arianespace invests in safety for its customers.

The German delegation does not seek here to exclude the possibility that we shall none the less later come to recognize that we need a catalogue of principles, or indeed an international treaty, perhaps regulating only sections of the whole range of problems. But neither do we want to rule out the option that the problem can be solved by the free market. Our work here at the United Nations creates global transparency and awareness of the issues involved.

One possible way to conclude the work of the Scientific and Technical Subcommittee is to draw up a handbook in which the state of the art of today's technical options for mitigation would be portrayed. Could not such a handbook be deposited with the United Nations Secretary-General? This transparency would enable all States or companies engaged in space to judge for themselves how they could most effectively reduce the dangers to their own satellites or astronauts in a space station.

In no way do we want to imply that this is the only correct view. But we do reject the unfounded suggestion that we need not await the findings of one of our best think-tanks — the Scientific and Technical Subcommittee. Those who seek to have space debris discussed in the Legal Subcommittee will be obliged to state their reasons from now on. Why is a regulation needed? What are the facts behind the request? What is the objective? In our view, these questions will not be satisfactorily answered until we have before us the Scientific and Technical Subcommittee's final report. Until then, we should let this forum get on with its work in peace.

The meeting rose at 12.45 p.m.